| Arg | Asp | Lys | Ala | Leu 165 | Ala | Tyr | Ala | Lys | Gly 170 | Ile | Gly | Gly | Ala | Arg 175 | Ala | |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------|
| ggc Gly | gta Val | tta Leu | gaa Glu 180 | acg Thr | aca Thr | ttt Phe | aaa Lys | gaa Glu 185 | gaa Glu | aca Thr | gaa Glu | aca Thr | gat Asp 190 | ttg Leu | ttc Phe | 576 |
| ggt Gly | gag Glu | caa Gln 195 | gca Ala | gtt Val | ctt Leu | tgc Cys | ggc Gly 200 | gga Gly | tta Leu | agc Ser | gcg Ala | ctt Leu 205 | gtc Val | aaa Lys | gcc Ala | 624 |
| gga Gly | ttt Phe 210 | gaa Glu | acc Thr | tta Leu | act Thr | gaa Glu 215 | gca Ala | ggt Gly | tat Tyr | cag Gln | cct Pro 220 | gaa Glu | ctt Leu | gca Ala | tac Tyr | 672 |
| ttc Phe 225 | gag Glu | tgt Cys | ctt Leu | cat His | gag Glu 230 | ctg Leu | aaa Lys | tta Leu | atc Ile | gta Val 235 | gac Asp | ctt Leu | atg Met | tac Tyr | gaa Glu 240 | 720 |
| gaa Glu | gga Gly | ctt Leu | gca Ala | gga Gly 245 | atg Met | aga Arg | tat Tyr | tca Ser | atc Ile 250 | tct Ser | gac Asp | aca Thr | gca Ala | cag Gln 255 | tgg Trp | 768 |
| gga Gly | gat Asp | ttc Phe | gta Val 260 | tca Ser | ggc Gly | cct Pro | cgc Arg | gtt Val 265 | gtg Val | gac Asp | gcc Ala | aaa Lys | gta Val 270 | aaa Lys | gaa Glu | 816 |
| tct Ser | atg Met | aaa Lys 275 | gaa Glu | gta Val | tta Leu | aaa Lys | gat Asp 280 | atc Ile | caa Gln | aac Asn | ggt Gly | aca Thr 285 | ttc Phe | gca Ala | aaa Lys | 864 |
| gag Glu | tgg Trp 290 | atc Ile | gtc Val | gaa Glu | aac Asn | caa Gln 295 | Val | aac Asn | cgt Arg | cct Pro | cgt Arg 300 | ttc Phe | aac Asn | gct Ala | atc Ile | 912 |
| aat Asn 305 | Ala | agc Ser | gag Glu | aac Asn | gaa Glu 310 | cat H i s | caa Gln | atc Ile | gaa Glu | gta Val 315 | gtg Val | gga Gly | aga Arg | aag Lys | ctt Leu 320 | 960 |
| cgt Arg | gaa Glu | atg Met | atg Met | ccg Pro 325 | ttt Phe | gtg Val | aaa Lys | caa Gln | ggc Gly 330 | aag Lys | aag Lys | aag Lys | gaa Glu | gcg Ala 335 | Val | 1008 |
| | | | | caa Gln | | | | | | | | | | | | 1029 |
| <210> 36 <211> 342 <212> PRT <213> Bacillus subtilis | | | | | | | | | | | | | | | | |
| <40 Met | | 36 Lys | ; Val | . Tyr 5 | | : Asr | n Gly | / Asp | ıle 10 | | s Glu | ı Asr | ı Val | Leu 15 | . Ala | |
| Gly | / Lys | s Thi | Val | | . Val | Ile | e Gly | 7 Tyr 25 | | 7 Ser | Gln | ı Gly | His 30 | | His | |
| Ala | a Leu | ı Asr | ı Leı | ı Lys | Gli | ı Ser | c Gly | v Val | Asp | val | L Il∈ | e Val | Gly | v Val | Arg | |

| | | 35 | | | | | 40 | | | | | 45 | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gln | Gly 50 | Lys | Ser | Phe | Thr | Gln 55 | Ala | Gln | Glu | Asp | Gly 60 | His | Lys | Val | Phe |
| Ser 65 | Val | Lys | Glu | Ala | Ala 70 | Ala | Gln | Ala | Glu | Ile 75 | Ile | Met | Val | Leu | Leu 80 |
| Pro | Asp | Glu | Gln | Gln 85 | Gln | Lys | Val | Tyr | Glu 90 | Ala | Glu | Ile | Lys | Asp 95 | Glu |
| Leu | Thr | Ala | Gly 100 | Lys | Ser | Leu | Val | Phe 105 | Ala | His | Gly | Phe | Asn 110 | Val | His |
| Phe | His | Gln 115 | Ile | Val | Pro | Pro | Ala 120 | Asp | Val | Asp | Val | Phe 125 | Leu | Val | Ala |
| Pro | Lys 130 | Gly | Pro | Gly | His | Leu 135 | Val | Arg | Arg | Thr | Tyr 140 | Glu | Gln | Gly | Ala |
| Gly 145 | Val | Pro | Ala | Leu | Phe 150 | Ala | Ile | Tyr | Gln | Asp 155 | Val | Thr | Gly | Glu | Ala 160 |
| Arg | Asp | Lys | Ala | Leu 165 | Ala | Tyr | Ala | Lys | Gly 170 | Ile | Gly | Gly | Ala | Arg 175 | Ala |
| Gly | Val | Leu | Glu 180 | Thr | Thr | Phe | Lys | Glu 185 | Glu | Thr | Glu | Thr | Asp 190 | Leu | Phe |
| Gly | Glu | Gln 195 | Ala | Val | Leu | Cys | Gly 200 | Gly | Leu | Ser | Ala | Leu 205 | Val | Lys | Ala |
| Gly | Phe 210 | | Thr | Leu | Thr | Glu 215 | | Gly | Tyr | Gln | Pro 220 | Glu | Leu | Ala | Tyr |
| Phe 225 | Glu | Cys | Leu | His | Glu 230 | Leu | Lys | Leu | Ile | Val 235 | Asp | Leu | Met | Tyr | Glu 240 |
| Glu | Gly | Leu | Ala | Gly 245 | | Arg | Tyr | Ser | Ile 250 | Ser | Asp | Thr | Ala | Gln 255 | Trp |
| Gly | Asp | Ph∈ | val 260 | | Gly | Pro | Arg | Val 265 | | Asp | Ala | Lys | Val 270 | Lys | Glu |
| Ser | Met | Lys 275 | | . Val | Leu | . Lys | 280 | | : Glr | Asn | Gly | Thr 285 | Phe | Ala | Lys |
| Glu | Trp 290 | | e Val | Glu | . Asn | Gln 295 | | . Asn | Arg | Pro | Arg 300 | | Asn | Ala | Ile |
| Asn 305 | | Ser | Glu | Asn | 310 | | Glr | ı Ile | e Glu | 315 | | Gly | Arg | Lys | Leu 320 |
| Arg | r Glu | ı Met | . Met | Prc 325 | | e Val | Lys | s Glr | 330 330 | | Lys | Lys | Glu | Ala 335 | |
| Val | Ser | . Val | l Ala | | n Asr | ì | | | | | | | | | |

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200

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